IN THE CLAIMS:

Please amend the claims as follows:

1-134. (Cancelled)

135. (Currently amended): A method of predicting the receptor-modulating activity of a test compound when bound to a**n estrogen** receptor, comprising the steps of:

(1) (a) providing an unliganded estrogen receptor;

(b) contacting **the**~~said~~ unliganded estrogen receptor with a plurality of reference compounds~~, said reference compounds~~ known to modulate the biological activity of **the**~~said~~ estrogen receptor,~~ and~~ wherein **each of** the unliganded estrogen receptor **and**~~or the binding of each reference compound to~~ **the**~~said~~ estrogen receptor **bound to each of the reference compounds** forms a reference conformation, **the**~~said~~ plurality of reference compounds selected from the group consisting of estradiol, estriol, nafoxidine, 4-OH tamoxifen, clomifene, premarin, raloxifene, ICI 182,780, 16α-OH estrone, and progesterone;

(c) **contacting the estrogen receptor reference conformations with** ~~providing~~ a panel comprising a plurality of **peptide conformational probes**~~members~~ representing a plurality of classes**, wherein the classes are** selected from the group consisting of ERα/βI, ERα/βII, ERα/βIII, ERα/βIV, **ERα/βV,** ERαI, ERαII, ERαIII, ER βI, ERβII, **and** ERβIII **peptides**, wherein **the**~~said~~ members of **the**~~said~~ panel possess differential ability to bind to **the unliganded reference conformation and one or more of the**~~said~~ reference conformation**s**;

(d)~~ contacting said reference conformation with said panel;~~

[[~~(e)~~]] measuring the ~~effect of said reference compound on the~~ binding of **the**~~said~~ panel members to **the**~~said~~ **estrogen** receptor **reference conformations**~~, said measuring step forming~~ **to form** a fingerprint for each ~~member of said plurality~~ of **the** reference compounds;

(2) (a) providing a test compound;

(b) contacting **the**~~said~~ **unliganded** estrogen receptor with **the**~~said~~ test compound, wherein the binding of **the**~~said~~ test compound to **the**~~said~~ estrogen receptor forms a test conformation;

(c) contacting **the**~~said~~ test conformation with **the**~~said~~ panel **members**;

(d) measuring the ~~effect of said test compound on the~~ binding of **the**~~said~~ panel member**s to the test conformation**; and

(3) comparing the ~~effect of said test compound on the~~ binding of **the**~~said~~ panel member**s to the test conformation and** to **the**~~said~~ **reference compound** fingerprints to predict the receptor-modulating activity of **the**~~said~~ test compound when bound to **the**~~said~~ estrogen receptor.

136.-138 (Canceled)

139. (Currently amended) The method of claim 135, wherein **the**~~said~~ biological activity of **the**~~said~~ reference compounds at **the**~~said~~ **estrogen** receptor is known for a plurality of different tissues, so that the biological activity of **the**~~said~~ test compound in **the**~~said~~ **different** tissues is predicted.

140-141. (Cancelled).

142. (Currently amended) The method of claim 135, wherein **the**~~said~~ reference compound is a pharmacological agonist or antagonist of **the**~~said~~ receptor.

143. (Cancelled)

144. (Currently amended) The method of claim 135, wherein **the**~~said~~ test compounds are provided ~~and screened~~ in the form of a combinatorial library.

145. (Currently amended) The method of claim 135, wherein **the**~~said~~ test compound comprises an organic compound with a molecular weight of less than 500 daltons.

146. (Currently amended) The method of claim 135, wherein **the**~~said~~ contacting steps are performed in vitro.

147. (Cancelled).

148. (Currently amended) The method of claim 135, wherein at least one **of the** panel member**s** is a peptide comprising Leu-Xaa-Xaa-Leu-Leu wherein Xaa represents any naturally occurring amino acid.

149. (Currently amended) The method of claim **158**[[~~135~~]], wherein at least one **of the** panel member**s** has a substantially higher affinity for **the** ERα than for **the** ERβ, and at least one other **of the** panel member**s** has a substantially higher affinity for **the** ERβ than for **the** ERα.

150. (Currently amended) The method of claim 135, wherein at least one **of the** panel member**s** binds the **estrogen** receptor substantially more strongly when the **estrogen** receptor is bound to estradiol then when the **estrogen** receptor is not so bound.

151. (Currently amended) The method of claim 135, wherein at least one **of the** panel member**s** binds the **estrogen** receptor substantially less strongly when the **estrogen** receptor is bound to estradiol **then** when **the estrogen receptor** ~~it~~ is not so bound.

152. (Currently amended) The method of claim **158**[[~~135~~]], wherein **the**~~said~~ panel comprises:

(1) at least one member **having**~~with~~ a ~~substantially~~**substantially** higher affinity for **the** ERβ than for **the** ERα, **and having an** ~~whose~~ affinity **that** is substantially greater for **the** estradiol-bound ER than for **the** unliganded ER;

(2) at least one member **having**~~with~~ a substantially higher affinity for ERα than for ERβ, **and having an** ~~whose~~ affinity **that** is substantially the same for **the** estradiol-bound ER and for **the** unliganded ER;

(3) at least one member **having**~~with~~ a substantially higher affinity for ERα than for ERβ, **and having an** ~~whose~~ affinity **that** is higher for **the** estradiol-bound ERα than for **the** unliganded ERα, and substantially the same for **the** estradiol-bound ERβ and **the** unliganded ERβ;

(4) at least one member **having**~~with~~ a higher affinity for **the** ERα than for **the** ERβ, **and having an** ~~whose~~ affinity **that** is substantially lower for **the** estradiol bound ERα than for **the** unliganded ERα, and substantially the same for **the** estradiol-bound ERβ and **the** unliganded ERβ; and

(5) at least one member **having**~~with~~ a substantially higher affinity for **the** ERβ than for **the** ERα, and **having an** ~~whose~~ affinity **that** is substantially lower for **the** estradiol-bound ER than for **the** unliganded ER.

153. (Currently amended) The method of claim 135, wherein **the**~~said~~ reference conformations include ~~a plurality of conformations selected from the group consisting of~~ unliganded receptor, estradiol-liganded receptor, 4-OH tamoxifen liganded receptor, estriol-liganded receptor, nafoxidene-liganded receptor, clomifene-liganded receptor, premarin-liganded receptor, raloxifene-liganded receptor, ICI 182,780-liganded receptor, 16α-OH estrone-liganded receptor, and progesterone-liganded receptor.

154. (Cancelled).

155. (Currently amended) The method of claim 135, wherein **the**~~said~~ method distinguishes among 4-OH tamoxifen, nafoxidene, clomiphene, and raloxifene.

156. (Canceled).

157. (Currently amended) The method of claim 135, wherein at least one member of **the**~~said~~ panel is a Table 10 peptide, α/βI, α/βII, α/βIII, α/βIV, α/βV, αI, αII, αIII, βI, βII, and βIII, or **a** peptide[[s]] having the same characterizing binding activity against **the** reference conformations of **the** ER **as the**~~, and markedly identical to at least one of said~~ Table 10 peptides.

158. (New) The method of claim 135, wherein the estrogen receptor includes an ERα and an ERβ.